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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,200	12/07/2001	Howard Allen Colvin	DN2000251	9470

7590 10/13/2006

The Goodyear Tire & Rubber Company  
Patent & Trademark Department - D/823  
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EXAMINER
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NUTTER, NATHAN M

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 10/13/2006

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/021,200  
Filing Date: December 07, 2001  
Appellant(s): COLVIN ET AL.

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Alvin t. Rockhill  
For Appellant

**EXAMINER'S ANSWER**

**MAILED**  
OCT 13 2006  
**GROUP 1700**

Art Unit: 1711

This is a Supplemental Examiner's Answer replacing the Examiner's Answer mailed 9 March 2006 in response to the appeal brief filed 22 November 2004 appealing from the Office action mailed 22 June 2004.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,075,084	MABRY et al	6-2000
6,417,246	JIA et al	9-2002
SN 60/155,292	JIA et al	9-1999

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The rejection of claim 1 under 35 U.S.C. 102(a), as set forth in the Office Action of 22 June 2004, is hereby expressly withdrawn.

Claims 1, 3-7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mabry et al (US 6,075,084) in view of Jia et al (US 6,417,246).

The reference to Mabry et al describes elastomer composite blends and the method of manufacture. Suitable elastomer latex fluids include natural and synthetic elastomer latices and latex blends. Styrene-butadiene rubber is disclosed as one of the suitable latices at column 11 (line 50) to column 12 (line 27). Fumed silica and precipitated silica are disclosed as suitable fillers therefor at column 14 (lines 6-14). They are taught to possess an aspect ratio of less than 40 at column 15 (lines 47-50).

Mabry fails to suggest the (claimed) dimensions of the silica except that the silica may be fumed silica or precipitated silica at column 14 (line 9). Mabry discloses at column 15 (lines 48-60) that fillers, including silica, typically have an aspect ratio of less than 40.

The reference to Jia et al discloses dental composite materials comprising polymers and filler, such as colloidal silica (Abstract). The silica disclosed has the

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largest dimension or diameter of 10-100 nanometers. A suitable silica is SNOTEX-PS at column 3 (lines 43-45 and line 51). SNOTEX is the same silica which is used in the instant invention. See the Specification at page 10 (lines 24-28).

It would have been obvious to use the SNOTEX silica of Jia et al in the elastomer blend composite of Mabry et al to enhance dispersibility and to improve resistance to fracture. Therefore it is reasonable to infer that the silica of Jia et al satisfies the limitations of the silica as recited in instant claim 1.

#### **(10) Response to Argument**

On page 4 of the Appeal Brief, appellants' argument that "Mabry et al do not disclose any necessity or preference for using elongated silica" is not persuasive since the examiner has set forth what success or advantage can be expected from using elongated silica. Appellants' assertion that "the use of elongated silica resulted in superior reinforcement was an unexpected discovery" is not agreed with since it is evident from prior art, that there was nothing that was unexpected.

Appellants' argument that "Jia uses polymerizable resins for dental compositions and therefore the teachings of Jia are not applicable to rubber compositions" is not persuasive since Jia, though not precisely the same art area as that of Mabry et al, helps to solve the problem faced by Mabry viz. how to enhance reinforcement and which type of silica should be useful. Here it is immaterial whether the resins are polymerizable or not since all resins do polymerize ultimately. If the silica

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of Jia et al works well with a polymerizable resin it is reasonable to assume that, it should work equally well with rubber, unless proved otherwise.

The reference to Jia et al at column 5 (lines 20-23) does point out that elongated colloidal silica performs much better than the spherical colloidal silica.

With regard to the reference to Jia et al ( US 6,417,246), the filing date of the parent Provisional Patent Application Serial No. 60/155,292 is relied upon. On page 6 of the Appeal Brief, appellants argue that "(i)f the Examiner wishes to rely upon the September 21, 1999 filing date of Provisional Patent Application Serial No. 60/155,292 in making a rejection under 35 U.S.C. §102(e) he must show that the provisional application contained support for the invention claimed in the referenced patent from the standpoint of §120 and § 121." Appellants go on that "the Rule 131 Affidavit of Sun Lin Chen is effective to "swear-behind" the effective date of Jia and lia cannot be used to support a rejection under 35 U.S.C. §102(e)/§103." This is not deemed to be persuasive since the Provisional Patent Application Serial No. 60/155,292 teaches the manufacture of dental composite materials comprising polymers and filler, such as colloidal silica. The silica disclosed has the largest dimension or diameter of 10-50 nanometers at page 6 (lines 2-4). A suitable silica is SNOTEX-PS at page 6 (lines 6-7). The Specification specifically teaches the employment of SNOWTEX-PS at page 10 (line 26). Note the attached copy of Provisional Patent Application Serial No. 60/155,292.

Claims 1, 3-7 and 15 are therefore prima facie obvious.

**(11) Related Proceeding(s).Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Nathan M. Nutter

Primary Examiner

Conferees:

  
James Seidleck

  
David Wu



NATHAN M. NUTTER  
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GROUP 1200 1711